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FILE
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Requirements for Nuclear Timer

1. The timer shall be capable of being externally started, stopped, and reset an indefinite number of times.
2. The timer shall have all manually operated controls accessible to permit all necessary operations. These controls shall be inclosed within a timer case by means of a screw on cap.
3. The timer shall be capable of being set to a minimum delay period of 48 hours, and settable in 48 hour increments up to 400 days.
4. A positive safety switch shall be provided to interrupt the firing circuit and timer circuit to prevent accidental firing on setting or starting.
5. All manually controlled switches shall be safety pinned.
6. A visual indicator shall be provided to indicate the remaining delay period when the timer is running. This visual indicator shall be incorporated within the timer case and shall be observed only upon removal of the case cover cap.
7. On starting the timer, there shall be a visual indication that the timer is operative; cover cap removed.
8. The timer and associated circuitry shall be "potted" as necessary and enclosed in a right circular cylinder type case as small as possible with an anti-removal screw on cap.
9. The timer output terminals shall be connected to a female type plug suitable for attaching a special coupling base. To be specified.
10. The timer shall have an electrical output capable of initiating a special coupling base (to be specified) after runout of the set delay time. Maximum, 500,000 erg $\frac{1}{10}\%$ output.
11. The timer shall function with a 98% reliability in any orientation between and including the temperature limits of -40 to 160F.
12. The timing accuracy is required to be $\frac{1}{10}\%$ over the temperature range and minimum set timing period.
13. The timer shall be operable and watertight under a pressure of 30 feet of water.
14. The timer shall have a shelf life of ten years under normal storage conditions.

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15. The desired outward configuration of the timer assembly shall be a right circular cylinder with a suitable screw on anti-removal cap and suitable female type electrical connector (to be specified) opposite the cap end. Timer case material will be specified by the contracting authority.
16. The timer shall withstand the transportation vibration test as specified in MIL-STD-303 without detrimental effect to functioning capabilities.
17. The timer shall withstand a five foot drop test when dropped on a steel plate (207 Brinell minimum hardness) having a minimum thickness of three inches and solidly supported on a concrete base. The cased timer shall be dropped in three orientations: top, bottom, and side and shall either fail safe or function reliably.
18. The timer shall be radiation detection proof.
19. The timer requirements as specified above may be revised by the contracting authority to facilitate development.

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